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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,854	12/14/2001	Tatsuo Shiozawa	217359US2S	1814

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EXAMINER	
PERILLA, JASON M	

ART UNIT	PAPER NUMBER
2638	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/014,854	SHIOZAWA ET AL.	
	Examiner	Art Unit	
	Jason M. Perilla	2638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7-9,14-16 and 20* is/are rejected.

7)☒ Claim(s) *3-6,10-13 and 17-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending in the instant application.

Drawings

2. Figures 5-7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Response to Arguments/Amendments

3. With respect to the rejections of claims 1 and 7 under 35 U.S.C. §102(a) as being anticipated by the Applicant's Admitted Prior Art "AAPA" as set forth in the first office action dated March 28, 2005, applicant's arguments filed June 28, 2005 have been fully considered. In view of the amendments to the claims and the applicant's remarks, the rejections are withdrawn. However, new rejections are set forth below.

With respect to the rejections of claims 8, 14, 15, and 20 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of Nguyen (US 5838748) as set forth in the first office action dated March 28, 2005, applicant's arguments filed June 28, 2005 have been fully considered, but they are not persuasive. Specifically, the applicant argues that Nguyen teaches counting of data bytes for detecting a starting point of a

command code and not the setting of a standby period. However, the teaching of Nguyen is taken more generally to be the use of counting data bytes (or, equivalently – symbols) to find moments in a data transmission. One skilled in the art would find the teachings of Nguyen advantageous and effective in both finding the start or end of any particular data moment because it is strictly accurate. Further, although the applicant suggests that the prior art Nguyen is not analogous to the instant invention because Nguyen's network relies upon a RS-232 network and the instant invention relies upon an IEEE 802.11 protocol, the claims are not limited to an IEEE 802.11 protocol. Even if the IEEE 802.11 protocol was claimed, however, the teachings of Nguyen would still apply because Nguyen teaches the counting of data bytes or symbols which is common in each instance. That is, the teachings of Nguyen are general enough to one skilled in the art that they could be applied regardless of the type of protocol utilized (provided the transfer of data is included). While the applicant questions if Nguyen's method of counting would work in the context of a radio transmission control device, the Examiner points out that "counting" is universal and may apply in each case. Moreover, the Examiner points out that the reference Nguyen and the AAPA are each related to the field of data communications and are therefore analogous. Finally, the applicant proposes that in the combination of AAPA and Nguyen, AAPA would have to be unduly modified to utilize CUE words, 1200-9600 baud modems, and RS-232 communications and, therefore, the combination is beyond any scope of reasonable motivation. The Examiner insists, however, that the applicant's response is merely an attempt to combine the references inappropriately and suggest that such is the Examiner's result.

In the combination of AAPA and Nguyen, AAPA does not need to be unduly modified to utilize the simple teachings of Nguyen including counting data symbols. That is, the structure and application of AAPA does not have to be destroyed in combination with the teachings of Nguyen as erroneously purported by the applicant.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant's Admitted Prior Art (AAPA; figs. 5-7; Specification pgs. 1-8).

Regarding claim 1, the AAPA discloses according to figure 7, a radio communication control device comprising: a demodulation unit (13), coupled to an output end of the demodulation unit, configured to demodulate a received signal; a detection circuit (17) configured to detect final data contained in a received data stream supplied from the demodulation unit, said detection circuit outputting a final data notification signal when detecting the final data; and a standby period timer (18) configured to set a standby period in accordance with the final data notification signal output from said detection circuit (pg. 4, line 25 – pg. 5, line 20). According to the AAPA, the detection circuit or frame receiving unit is able to detect the final data, and, afterwards, the standby period is started (pg. 5, lines 17-20). Although the AAPA does not explicitly disclose the detection circuit being directly coupled to and further

configured to output a final data notification signal, *it is disclosed that the counting of the standby period is started when the detection circuit receives (detects) the final data.* Therefore, it is inherent *or at least obvious* that the detection circuit of the AAPA as illustrated in figure 7 and disclosed in the body of the specification (pg. 4, line 25 – pg. 5, line 20) will output at least a start signal which will start the timer or, equivalently, a final data notification signal. Therefore, it is obvious that the standby timer is "coupled" to an output of the detection circuit in some form because the coupling is necessary for the start timer to start counting as disclosed according to the final data notification signal.

Regarding claim 7, the AAPA discloses the limitations according to claim 1 above. Further, the AAPA discloses by figure 7 a transmitter unit (20) connected to the standby period timer (18), and configured to transmit a frame in accordance with an output signal of the standby period timer as illustrated (pg. 1, lines 19-26).

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Raphaeli et al (US 2003/0103521; hereafter "Raphaeli" – previously cited).

Regarding claim 2, the AAPA discloses the limitations of claim 1 as applied above. Further, the AAPA discloses that the radio data is in conformity with the IEEE 802.11 standard (pg. 2, lines 15-20). The AAPA does not explicitly disclose that the received data includes a data section containing a plurality of symbols and a symbol length indicating section indicating the number of symbols in the data section. However, Raphaeli teaches the format of an IEEE 802.11 frame (para. 265) having a data section or payload (para. 269) and a symbol length field or payload length field

(para. 292). Therefore, with reference to the disclosure of Raphaeli regarding the nature of an IEEE 802.11 data frame, it would have been obvious to one having ordinary skill in the art at the time which the invention was made that the received data stream of the AAPA radio device would contain a data and a data length portion because it is the standard frame type utilized in IEEE 802.11 communications.

7. Claims 8, 14, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Nguyen (US 5838748).

Regarding claim 8, the AAPA discloses a demodulation unit, detection unit, and a standby period timer as applied to claim 1 above. The AAPA does not disclose that the detection circuit is configured to count the number of symbols to realize the end of a frame and output the final data notification signal. However, Nguyen teaches a communications system wherein the end of the data frame is monitored according to a symbol count (fig. 5, col. 10, lines 57-68). Nguyen teaches an accurate method of determining the end of a transmission and the start of an interframe period because the frame length is known (col. 9, lines 12-20). Further, Nguyen teaches that a type of interframe period timer is started because a measure of the length of the interframe period is known by the receiver (fig. 5A, ref. 110; col. 11, lines 20-21) and that a control line is lowered (col. 10, lines 65-66). One having skill in the art and being familiar with IEEE 802.11 frames would be motivated according to the teachings of Nguyen to count the number of symbols for the detection of the end of the frame because the end of the frame could be accurately determined as disclosed by Nguyen. Therefore, it would have been obvious to one having ordinary skill in the art at the time which the invention

was made to count the number of symbols of demodulated data in a frame in the device of the AAPA according to the teachings of Nguyen because the end of the frame and start of the interframe symbol could be accurately detected.

Regarding claim 14, the AAPA in view of Nguyen disclose the limitations according to claim 8 above. Further, the AAPA discloses by figure 7 a transmitter unit (20) connected to the standby period timer (18), and configured to transmit a frame in accordance with an output signal of the standby period timer as illustrated (pg. 1, lines 19-26).

Regarding claim 15, the AAPA in view of Nguyen disclose the limitations of claim 15 as applied to claims 8 and 14 above. That is, the AAPA in view of Nguyen disclose the demodulation unit, detection circuit, and standby period timer wherein a transmission is started after the standby period timer elapses (pg. 1, lines 19-26) as applied to claims 8 and 14 above.

Regarding claim 20, the AAPA in view of Nguyen disclose the limitations of claim 15 as applied above. Further, the AAPA discloses according to figure 7, a buffer circuit (15) connected to an output terminal of the detection circuit, and configured to hold symbols outputted from the detection circuit; a Viterbi decoder (16) connected to an output terminal of the buffer circuit, and configured to decode the symbols outputted from the detection circuit, to reproduce a frame; and a frame receiver unit (17) configured to receive the frame outputted from the Viterbi decoder.

8. Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the AAPA in view of Nguyen, and in further view of Raphaeli.

Regarding claim 9, the AAPA in view of Nguyen disclose the limitations of claim 8 as applied above. Further, Raphaeli discloses the further limitations of claim 9 as applied to claim 2 above.

Regarding claim 16, the AAPA in view of Nguyen disclose the limitations of claim 15 as applied above. Further, Raphaeli discloses the further limitations of claim 16 as applied to claim 2 above.

Allowable Subject Matter

9. Claims 3-6, 10-13, and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art of record not relied upon above is cited to further show the state of the art with respect to starting standby period timers.

U.S. Pat. No. 6095632 to Kobayashi et al.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Perilla whose telephone number is (571) 272-3055. The examiner can normally be reached on M-F 8-5 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason M. Perilla
September 2, 2005

jmp

CHIEH M. FAN
PRIMARY EXAMINER